

Re: Is Zone Alarm necessary with a DSL firewall?

Source:

<http://www.tech-archive.net/Archive/WinXP/microsoft.public.windowsxp.basics/2006-11/msg00683.html>

- *From:* "bud--" <budnews@xxxxxxx>
 - *Date:* 13 Nov 2006 08:52:31 -0800
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On Nov 12, 12:37 pm, DanS <t.h.i.s.n.t.h....@xxxxxxxxxxxxxxxxxxxxxxxxxxxx> wrote:

"w_tom" <w_t...@xxxxxxx> wrote
innews:1163352053.423395.18750@xxxxxxxxxxxxxxxxxxxxxxxxxxxx:

You are talking about surges. That is lightning. We install surge protection for a typically destructive surge – lightning. Other surges made irrelevant by same protection

NO, you install a lightning protector to protect against lightning.

I do agree with w_ that surge suppressors can protect against lightning, depending on suppressor rating, surge rating and where the hit occurs. They may not protect from an unlikely direct hit to a house, but can protect from surges coming in on power and signal wiring. (You may be talking about direct strikes and lightning rods. Or tower antennas.)

Well, I have provided you with numbers...the APC one, claiming around 900 joules, and I looked up the Monster item you keep speaking about. That indicates 1600 joules. But apparently you do not read entire posts. Or you just ignore anything you don't like.

So....let's do the math.

1 Watt = 1 Joule / one second

1000 joules = 1000 watts/one second.

A 10 ms surge = 100,000 watts.

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A 5 ms surge = 200,000 watts.

A 1 ms surge = 1,000,000 watts.

Therefore, your 12,000 volts at 100 amps for 1ms figures to be 1.2 millions watts. So, the Monster (suprisingly) would, IN THEORY, absorb this, depending on how long it lasts. And let's face it, this is ALL theory.

Reading ahead I know you don't necessarily see these as realistic numbers, but some comments. The energy dissipation in a MOV is based on the clamping voltage across it. A surge suppressor may have a rated clamp voltage of 400V, and the voltage across the MOV will go up to maybe 500 or 600V with tens of thousands of amps in a service panel protector. Wiring impedence significantly lowers the current for plug-in suppressors unless very near the service panel. The clamp voltage (400-600V here) determines the energy hit the MOV receives. The most severe surges are typically lightning derived. A stroke is on the order of 100 microseconds (but there may be multiple strokes).

If you had a 10,000A surge lasting 100 microseconds to a MOV that clamped at 600V the device would dissipate 600J.

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